

Appl. No. 10 520 842

Amdt. dated June 13, 2006

Reply to Office action mailed December 13, 2005

AMENDMENTS TO THE CLAIMS:

Claims 1 to 7 are pending and under consideration. This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS SHOWING AMENDMENTS TO THE CLAIMS:

Claim 1 (Currently amended). A flame retardant thermoplastic resin composition comprising:

(A) 45 to 95 parts by weight of a polycarbonate resin;

(B) 1 to 50 parts by weight of a rubber modified vinyl-grafted copolymer prepared by graft-polymerizing (b₁) 5 to 95 % by weight of a monomer mixture comprising of 50 to 95% by weight of at least one of styrene, α -methylstyrene, halogen- or alkyl-substituted styrene, C₁₋₈ methacrylic acid alkyl ester, C₁₋₈ acrylic acid alkyl ester, or a mixture thereof and 5 to 50 % by weight of acrylonitrile, methacrylonitrile, C₁₋₈ methacrylic acid alkyl ester, C₁₋₈ acrylic acid alkyl ester, maleic acid anhydride, or C₁₋₄ alkyl- or phenyl N-substituted maleimide onto (b₂) 5 to 95 % by weight of a rubber polymer selected from the group consisting of butadiene rubber, acryl rubber, ethylene-propylene rubber, styrene-butadiene rubber, acrylonitrile-butadiene rubber, isoprene rubber, copolymer of ethylene-propylene-diene (EPDM), polyorganosiloxane-polyalkyl (meta)acrylate rubber complex and a mixture thereof;

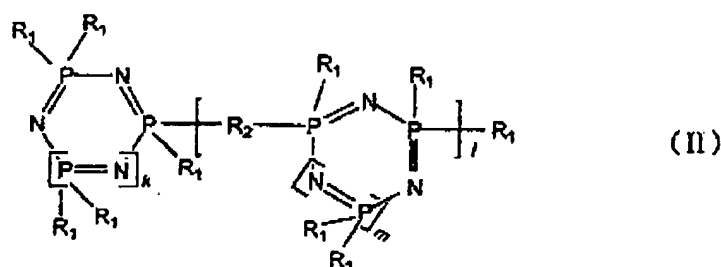
(C) 0 to 50 parts by weight of a vinyl copolymer prepared from (c₁) 40 to 95 % by weight of at least one of styrene, α -methyl styrene, halogen or alkyl substituted styrene, C₁₋₈ methacrylic acid alkyl ester, or C₁₋₈ acrylic acid alkyl ester and (c₂) 5 to 60 % by weight of at least one of acrylonitrile, methacrylonitrile, C₁₋₈ methacrylic acid alkyl ester, C₁₋₈ acrylic acid alkyl ester, maleic acid anhydride, or C₁₋₄ alkyl or phenyl N-substituted maleimide;

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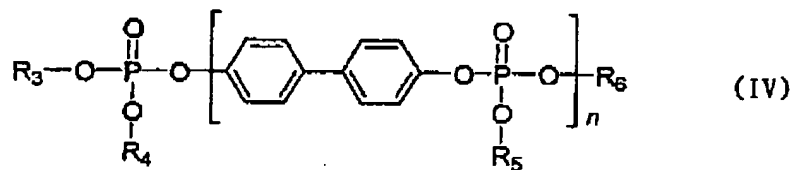
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(D) 1 ~ 30 parts by weight of a mixture of organic phosphorous compounds comprising (d₁) 1 ~ 50 % by weight of a cyclic oligomeric phosphazene compound represented by the following Formula (II) and (d₂) 99 ~ 50 % by weight of an oligomeric phosphoric acid ester compound represented by the following Formula (IV), per 100 parts by weight of the sum of (A), (B) and (C): and



wherein R₁ is alkyl, aryl, alkyl substituted aryl, aralkyl, alkoxy, aryloxy, amino, or hydroxyl or alkoxy substituted with alkyl, aryl, amino, or hydroxy group or aryloxy substituted with alkyl, aryl, amino, or hydroxy group; *k* and *m* are an integer from 0 to 10; R₂ is C₆₋₃₀ dioxyaryl or alkyl substituted C₆₋₃₀ dioxyaryl derivative; and *l* is a degree of polymerization and the average value of *l* is from 0.3 to 3;



wherein R₃, R₄, R₅ and R₆ are independently a C₆₋₂₀ aryl group or an alkyl-substituted C₆₋₂₀ aryl group, respectively, and *n* is an integer from 1 to 5 representing the number of repeating units and the average value of *n* in the oligomeric phosphoric acid ester is 1 to 3.

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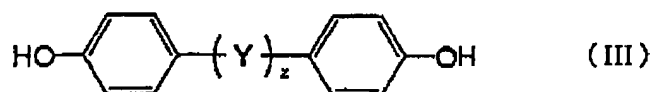
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(E) 0.05 to 5.0 parts by weight of a fluorinated polyolefin resin per 100 parts by weight of (A)+(B)+(C).

Claim 2 (Previously presented). The flame retardant thermoplastic resin composition as defined in claim 1, wherein said cyclic oligomeric phosphazene compound has a linear structure.

Claim 3 (Original). The flame retardant thermoplastic resin composition as defined in claim 1, wherein R_1 is phenoxy and R_2 is a derivative from catechol, resorcinol, hydroquinone, or the bisphenylenediol represented by the following Formula (III):



wherein Y is alkylene of C_{1-3} , alkylidene of C_{1-3} , cycloalkylidene of C_{5-6} , S or SO_2 , and z is 0 or 1.

Claim 4 (Currently amended). The flame retardant thermoplastic resin composition as defined in claim 1, wherein said R_3 , R_4 , R_5 and R_6 are respectively a phenyl, or naphthyl group phenyl or naphthyl groups.

Claim 5 (Previously presented). The flame retardant thermoplastic resin composition as defined in claim 1, wherein said cyclic oligomeric phosphazene compound has a structure with a branched chain at the main chain.

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Claim 6 (Previously presented). The flame retardant thermoplastic resin composition as defined in claim 1, wherein said R_3 , R_4 , R_5 and R_6 are a respectively alkyl-substituted phenyl in which alkyl is methyl, ethyl, isopropyl, or t-butyl.

Claim 7 (Previously presented). The flame retardant thermoplastic resin composition as defined in claim 1, wherein said fluorinated polyolefin resin has an average particle size of 0.05 to 1,000 μm and a density of 1.2 to 2.3 g/cm^3 .